

Interactive comment on “Infrastructure sufficiency in meeting water demand under climate-induced socio-hydrological transition in the urbanizing Capibaribe River Basin – Brazil” by A. Ribeiro Neto et al.

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This is a potentially interesting paper, but has generated strong and insightful critiques from two reviewers, especially Reviewer #1.

My understanding of the paper is that it attempts to track the vulnerability of the current water supply infrastructure system to the effects of projected changes to climate and also to changes in water demand. It does this through the use of several models. Along the way, the paper alludes to more interesting socio-hydrologic perspectives of the co-

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evolution of human and water system dynamics, but in the end it only pays lip service to coupled human-water system dynamics. This is also one of the main criticisms of Reviewer #1: in other words, it promises a lot but in the end, it lets us down. Indeed, given the time frame of prediction used (to the end of the 21st century) and the rapid pace of climatic and demographic changes, socio-hydrology is particularly relevant, and the move towards a coupled socio-hydrologic model is completely appropriate.

Of course I understand building such a coupled model is beyond the scope of this paper. However, the authors can help by reframing the focus of the paper and restructuring the paper in a way as to bring out the need for a coupled model, the inability of traditional IWRM approaches to manage the system on such long timeframes, and how the present work contributes towards that effort. I believe that the paper needs significant revisions to clarify the aims of the paper in a socio-hydrologic context: the case study looks like an excellent one to highlight the need for socio-hydrology and associated models. I look forward to seeing a revised version of the manuscript.

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